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Second Meeting of the Joint Intergovernmental Regional Committee on Human Settlements and Environment

16-21 January 1984

Addis Ababa, Ethiopia

Report of the Expert Group Meeting on Regional Human Settlements Training Facilities and Mechanisms

1-4 November 1983

Addis Ababa, Ethiopia

I. INTRODUCTION

1. It has been observed that the availability of skills at various levels and fields constitutes the primary step towards solving the human settlements problems in the African region.

2. In the past, most African countries have utilized imported skills to implement human settlements programmes. Later, the need for training at the local level was given priority by all countries. It appears, however, that the majority of the training facilities and mechanisms were modelled on patterns of industrialized countries. One doubts whether the training methods, text books, tools/equipments and even the curricula used in these training institutions in Africa bear much relevance to current local problems.

3. Further, as a dynamic sector, one wonders whether the course contents of these training institutions reflect the region's skills requirements or even if new programmes are introduced to reflect technology changes, the State of the African economy as well as research findings in the sector.

4. A final factor of concern pertains to the fact that most of the training programmes in the human settlements sector centre on academic course leading to the award of a certificate, diploma or a degree. These courses are of long term duration and serve mainly national needs. It is observed that such courses do not adequately meet all the training requirements, and that there could be short term courses which could also be suitable to practicing professionals, technicians as well as others in the sector who have had no formal training. In addition, considering the specific skills requirements at the national level and the cost of providing the relevant facilities, it is doubted why neighbouring African countries do not co-operate in providing facilities for subregional or even regional training facilities in specific subject areas. There is also the concern about why some of the existing subregional training facilities are facing several difficulties.

5. The United Nations Economic Commission for Africa, within the framework of its technical assistance programme for the countries of the African region, accords high priority to the problems faced by the countries with regard to the provision of suitably trained manpower of all categories to undertake human settlements programmes. In order to provide a sound basis for planning future manpower training programmes, there is a need to review the current situation and find solutions to certain issues, particularly those pertaining to the relevance, adequacy, development and duration, as well as co-operation in training programmes in the African region.

6. The expert group meeting had two primary objectives:

(i) To appraise the relevance and suitability of existing human settlements training facilities and mechanisms to the current problems and needs of the African region.

(ii) To provide future guidelines and formulate policies for the organization of training facilities and programmes for human settlements personnel in the region.

II. ORGANIZATION OF THE MEETING

Date and venue of the meeting

7. The expert group meeting which was organized by the Human Settlements Section of the Economic Commission for Africa was held in Addis Ababa, Ethiopia from 1 to 4 November 1983.

Participation

8. The meeting was attended by experts selected from seven African countries, namely Ethiopia, Ghana, Nigeria, Senegal, Sudan, the United Republic of Tanzania and Zimbabwe. Representatives of the German Foundation for International Development (DSE) and the Institute for Housing Studies, Rotterdam, the Netherlands also participated in the meeting. A representative of the African Union of Architects had also been invited to the meeting. However, he arrived after the meeting and could not participate in the deliberations. A summary of his paper is included in Annex.

Election of Officers (agenda item 1)

9. Professor Kunle Adeyemi of Nigeria was unanimously elected as the Chairman of the meeting. The African experts, among them, served as rapporteurs for the various sessions of the meeting.

Opening of the meeting (agenda item 2)

10. In his opening statement, Mr. Makarabe, representing the Executive Secretary of ECA, welcomed participants and observed that a sound human settlements policy should be one of the most decisive factors for improving the living conditions of people. In line with the principles and guidelines of the Lagos Plan of Action the Joint Intergovernmental Regional Committee on Human Settlements and Environment, had noted that the availability of skilled manpower at various levels and in various areas was the first step to solving African's human settlements problems.

11. In the past, most African countries had relied on countries' manpower to carry out human settlements programmes. Currently, most of Africa's existing training institutions and mechanisms were modelled on similar structures in the industrialized countries. It could be asked whether the current training methods and programmes took into account the state of the African economy and really responded to local problems.

12. Africa could attain some of the objectives of the Lagos Plan of Action only if a critical study of the structural and geographical imbalances in the human settlements sector was conducted on a continent-wide level. Decisions should be adopted on the establishment of a mechanism that would allow African skills and accumulated experience to be pooled together. It was to be hoped that the deliberations of the meeting would result in the recommendation of practical measures to be taken.

Adoption of the agenda and programme of work (agenda item 3)

13. The participants of the expert group meeting on regional human settlements training facilities and mechanisms, adopted the provisional agenda, prepared by the secretariat after careful examination.

AGENDA

1. Election of officers
2. Opening of the meeting
3. Adoption of the agenda and programme of work
4. Popular housing, urban planning practice and the relevance of training facilities and curricula in the African context
5. Training needs and trends of physical planning in Africa
6. Adequacy and relevance of training facilities and curricula for architects, physical planners and urban planners in the African region
7. Training at national level of professionals in human settlements: points for considerations
8. Human settlements planning, education and international co-operation
9. Specific training programmes for the provision of construction skills for the African region
10. Regional training centres
11. Low-cost sanitation and waste disposal mechanisms and training facilities for urban and rural localities
12. Any other business
13. Adoption of the report and closure of the meeting

III. PROCEEDINGS OF THE MEETING

Popular housing, urban planning practice and the relevance of training facilities and curricula in the African context (Agenda item 4)

(a) Presentation of paper

14. The participant from Zimbabwe presented a paper on the above theme. He reviewed the current status of popular housing, urban planning practice and the relevance of training facilities and curricula in the African context. Examples given were mainly from the Eastern and Southern African sub-region. He identified the following common issues and trends with respect to national housing policies, urban planning strategies and skills available in relation to popular housing:

(i) National housing policies tend to neglect the problems of urban low income families. In many instances these families are considered as a burden to the state.

(ii) Urban planning strategies are often geared towards demolishing popular housing settlements rather than upgrading them. Also, the housing programmes do not include the provision of finance to upgrade these settlements.

(iii) No institutional support is given to upgrade, mobilize or co-ordinate the skills of urban and rural low income families.

15. The participant also identified the following common issues and trends concerning urban planning practice, involvement and training related to low income families:

(i) Current urban planning practice follows the path of colonial concepts and does not address to the basic needs of urban low income families.

(ii) Limited or no attempts are made for integrated urban development programmes and projects which integrate the development components - transportation, housing, infrastructure and community facilities components.

(iii) Community participation in the planning and decision making process is limited.

(iv) Standards as stipulated in current planning and building legislation and bye-laws related to land use, infrastructure, shelter and community facilities are outdated and unrealistic.

(v) Training and information needs of indigenous urban planners are acquired from training and research institutions based in low level countries.

16. The participant highlighted the importance of carrying out training needs surveys for professionals and para-professionals and called for support for the training of para-professionals and project implementation and management teams to carry out on-the-job training and workshops related to the urban low-income families popular housing problems.

17. With regard to development, he emphasized that Research and Development programmes were not adequately linked with training and information programmes and that curriculum development and training of trainers lagged behind the structural changes in technology, management, economic and social concepts in the field of human settlements. His paper supported the need to disseminate relevant information through mass media and mobile units.

18. The participant also dealt with the problem of lack of co-operation in the training of human settlements personnel and emphasized the role to be played by sub-regional, regional and international institutions, organizations and agencies and non-governmental organizations in this regard.

(E) Discussions

19. The issues and trends outlined and the recommendations suggested in the presentation were then discussed by the experts. With regard to the question of what constitutes popular housing in the African context and how urban development planning should be made to take account of it, the experts agreed that:

(i) Popular housing in the African context means housing developed by the rural or urban low income families where people cater for their own basic needs of shelter, infrastructure and services without any support from the formal public or private sectors of the economy. These are often referred to as slums or squatter settlements and characterized by lack of adequate water and sanitary facilities, poor quality shelters and overcrowding, garbage heaps, puddles of stagnant water on the paths and roads, and limited or no facilities for education and health amongst other facilities and services.

(ii) Urban development planning in the African region has to be such that it is interdisciplinary where inputs from professionals in related fields e.g. architects engineers, economists, sociologists, etc. are compiled, analyzed and interpreted to form the basis of urban development plans, which should emphasize incremental development of popular housing in urban areas rather than demolishing them and the promotion of indigenous concepts reflecting values and social aspirations of the society have to be taken into account in urban development plans.

Training needs and trends of physical planning in Africa (agenda item 5)

(a) Presentation of paper

20. Introducing his document, the participant from ECA pointed out that experience had brought to many African countries in the course of the first two United Nations Development Decades a greater awareness of the need to place more emphasis, on the spatial consequences of development. It was however, clear that compared to the efforts devoted to socio-economic planning, Africa's achievements in the theory, and applications of physical planning were still embryonic.

21. He stressed that if Africa wanted to make progress in this area, it should devote some efforts to manpower training. Training in physical planning required fairly substantial financial resources and it would therefore be unwise for states of the region to scatter their resources. Multinational co-operation was required. The countries had to demonstrate a sense of initiative in establishing and using joint training institutions.

22. There was also a need to establish a close link between training and research in order to be able to adapt training methods and programmes to local conditions.

(b) Discussions

23. Several questions were raised after this presentation. In answer to the comments and observations, the ECA representative stated that the secretariat had undertaken a mission to Eastern and Southern African countries to collect all the information and data it could on existing human settlements training institutions and on how this sector was organized in the countries. On account of its limited financial resources, the secretariat could not visit all the countries of the region and had for that reason, prepared and sent a questionnaire to all the countries. Unfortunately, most of the countries had not replied to the questionnaire. It was to be hoped that the experts present at the meeting would be able to assist the secretariat in securing information and data from their respective countries.

24. In terms of training organization, it would be more realistic to develop existing institutions and adapt them to the needs of the region, than to create new ones.

Adequacy and relevance of training facilities and curricula for Architects, Physical planners and urban planners in the African region (agenda item 6)

(a) Presentation of paper

25. In presenting his document, the participant from Senegal cited as examples, the Ecole Nationale d'Economie Appliquée du Sénégal (ENEA) and the l'Ecole d'Architecture et d'Urbanisme du Sénégal (EAU), which trained architects and physical planning staff. ENEA was structured as a microcosm of the bodies that would interact within the development process. It provided three years of post baccalauréat training composed of theoretical and practical courses and field studies designed to familiarize students with their environment and to acquaint them with development problems. The students were also monitored by the school during the first six months of duty in order to adapt training programmes to the needs of users.

26. EIU provided tuition in areas that promoted the development of architectural creativity. It had an architectural and urban planning department as well as a department for advanced architecture and urban planning. The training programme in the first department lasted 6 years with a two-year general course prior to specialization. It also had practical work and training programmes during which students carried out field studies in towns and villages and conducted research into traditional architecture. The second department trained middle level architectural and urban planning staff for direct recruitment into the public or private sector. Experience from the above training programmes indicated that it was imperative for a system of inter-agency co-operation on human settlements to be instituted into training programmes in Africa.

(c) Discussion

27. Two major questions were raised during the discussion. The first question on the definition of training courses stressed the need for feed-backs while taking the needs of employers and participants into account. The second stressed the need to promote traditional architecture. Answering questions, the representative of General recalled the professional orientation given in the training institutions indicated in his presentation and the concern of the General Government which, in establishing them, sought to train personnel well-acquainted with the African situation and ready to work. That was the reason for integrating fields of practical training in the programme content. He also stressed that adaptation should not be based on past traditions but on current and future local life and that in terms of aesthetic expression, tradition should not hamper the creativity of young architects.

28. Other participants gave brief descriptions of human settlements training institutions in their respective countries. Most of them stressed that practical courses and contacts with professional circles were crucial. They also wished to see the African Union of Architects organize an annual competition on the theme of traditional African architecture and planning.

Training at the national level of professionals in Human Settlements - Points for consideration (Agenda item 7)

(a) Presentation of paper

29. In presenting his paper, the participant from Ethiopia stated that human settlements training for Africans should not be a mere transfer to Africa of palliatives used in Europe or North America. This was all the more important because teaching programmes should meet the specific needs of African countries and the type of training should correspond to the will for speedy development of the African society. It was in this spirit that the "Centre de Formation des Techniciens des Etablissements Humains" was established in 1970 at Addis Ababa under co-operation between France and Ethiopia. The institute's programme was structured to train personnel who will establish the necessary development structures.

30. There was also a need to adapt teaching to developments in technologies and processes being used in Africa. Training should be oriented from the primary and secondary school levels to promote creativity.

31. It would be useful to ensure a broad exchange of experiences and viewpoints between managers and trainers in Africa through a newsletter and periodic meetings, for example.

Human Settlements Planning, Education and International Co-operation

32. The participant from the German Foundation for International Development (DSE) made a brief presentation of the programme of DSE. For a long time, the German Foundation for International Development (DSE) adopted a policy to sponsor national institutions in Africa through fellowship programmes. In order to improve upon this programme a list of urban and regional planning institutions in Africa should be made available. Apart from this, conferences, seminars and advanced training courses are offered also in the field of urban and regional planning by the DSE to exchange views and experiences.

33. In line with this policy of international co-operation, the University of Dortmund, Department of Spatial Planning has introduced a post graduate training programme on 'Spatial planning for regions in growing economies' (SPRING) in order to put some ideas of international co-operation into practice and to meet the specific needs of a growing number of foreign students in Germany. The programme in Regional Planning is designed as a 'sandwich curriculum', and it is intended to execute the programme in co-operation with universities in the African region, including the possibility of holding parts of the programme at African institutions and to award a joint or combined degree at M.A. level.

34. In the above programme, Spatial Planning is seen as a problem and action oriented tool to co-ordinate measures and projects to overcome social and economic underdevelopment, making as much use as possible of existing regional resources and potentials and emphasizing basic needs. Teaching materials and case studies are taken from the region.

Discussions

35. Following these presentations, several questions were raised and views expressed. Some participants maintained that the system of centralization killed creativity and that for creativity to thrive, people should be free to exercise their initiative. Other participants felt that there could be no creativity without security and staff would have to be trained within the social and economical context of Africa. There was also the need to develop co-operation between the training institutions of African countries.

Specific training programmes for the provision of construction skills for the African region (agenda item 9)

(a) Presentation of papers

36. Two papers were presented on this theme respectively by participants from Nigeria and the United Republic of Tanzania.

37. In his presentation the participant from Nigeria drew attention to the importance of the construction industry by stating that it provided more than 10 percent of the formal employment and a high proportion of informal employment in both the public and private sectors of the economy. The construction industry provided the first job experience to migrants from rural to urban areas and contributed to the capital formation and gross domestic product of each country.

38. The participant revealed that the bulk of tradesmen in Nigeria have been trained through apprenticeship schemes. He however, noted that there had been a decline in the scheme due to a number of factors including the following:

(i) Other peripheral jobs which yielded higher remuneration attract the youth;

(ii) Standards of morality of masters connotes servitude which many young people resent;

(iii) Free education scheme in Nigeria has reduced the number of young people entering the scheme.

39. He also discussed the problems relating to other training programmes, namely the courses offered at the technical colleges and vocational schools.

40. The participant from Nigeria then proposed a module training programme for carpenters, masons, plumbers, painters, plasterers and draughtsmen. The objectives of the programme are:

(i) To enable the tradesman acquire the skills required in the performance of his job;

(ii) To provide the trainee with the technology related to the trade;

(iii) To expose the trainee to tools, machinery and equipment;

(iv) To enable the trainee to develop his own skills and improve job performance; and

(v) To enable the trainee to improve upon his power of deductive thinking and value the need for further training.

41. He also discussed other supportive programmes such as company training schemes, joint inter-company training schemes, post-secondary schemes and housing cooperative training schemes.

42. In his contribution, the participant from the United Republic of Tanzania drew attention to the critical shortage of trained technical personnel in the formal construction sector in Africa and noted that even though the desirable ratio of the three major categories of construction personnel (professionals, technicians and craftsmen) is around 1: 5: 25, African countries had been unable to achieve this relationship. A study of manpower and training needs in the construction industry in the United Republic of Tanzania undertaken in 1977 revealed five major shortcomings:

(i) High vacancy rates at all skill levels;

(ii) Technical skills at all skill levels were not adequately diversified to meet the qualitative requirements of the industry;

(iii) Disproportionately high percentage of expatriate staff occupying various professional posts;

(iv) Technical manpower overall did not have the appropriate mix (1982 pattern ratio of 1: 2.5: 15); and

(v) Lack of co-ordination between the various institutions engaged in the training of various cadres in the industry.

43. The National Construction Council (NCC) was established in 1981 as a result of the above mentioned study. The NCC is, amongst other functions, involved in the training for the construction industry. It has a training department as one of the four operational departments. Training needs for both the formal and informal construction sectors were identified and outlined. The skill acquisition strategy adopted by the NCC to meet these needs includes:

(a) Formal training institutions for high-level manpower;
(b) Seminars and short courses for policy-makers, construction managers, foremen and trainers;
(c) Demonstration, Pilot Schemes for experimental houses;
(d) Information and Advisory Services for dissemination of information;
(e) Displays and Exhibitions for different audiences; and
(f) On-the-job training for craftsmen and semi-skilled workers.

44. In conclusion, the participant from the United Republic of Tanzania highlighted the need for trained manpower in the construction industry and suggested that:

(i) Governments should establish a national focal point to provide the necessary training linkages (such as the NCC) and

(ii) Governments in the region should pool resources together to foster viable regional training programmes, including seminars for trainers.

Regional Training Centres (agenda item 10)

45. The participant from the Institute for Housing Studies (IHS) of The Netherlands then presented a brief overview of the co-operation between IHS and developing countries in the field of training and research with special reference to the Centre for Housing Studies (CHS) based in Tanzania. He made the following observations.

(i) Joint ventures suited to local conditions between developed and developing countries training institutions are feasible;

(ii) Regional training centres, funded from overseas sources, experience problems of foreign exchange in terms of fellowships, etc. when the funding becomes that of the local counterpart institutions; and

(iii) Courses conducted should be aimed to serve a wide range of national and regional participants and should be applicable by the local trainers;

(iv) For the preparation of every training course, local research on housing problems by the teaching staff is essential for the relevance of the course.

(b) Discussions

46. The discussions which followed the presentation of the papers centred on the following points:

(i) Distinction between the technical and academic education for the construction industry;

(ii) Ability of the construction industry to build affordable low-income housing;

(iii) Need to train the urban and rural low-income families to participate in the training process especially in self-help and housing co-operative schemes;

(iv) Serious lack of financial resources being experienced by training and research institutions in the region.

(v) Promotion of local building materials industry and the necessary supportive training;

(vi) Need for a range of construction skills to cater for different target income groups in human settlements;

(vii) Need to assist craftsmen and small-scale builders with the provision of necessary tools and equipment;

(viii) High and increasing cost of training and the necessity to outline priorities for training at different levels; and

(ix) Problems and potentials for co-operation between training institutions in Africa and those outside the region.

47. The participants agreed that:

(i) There exists a critical shortage of technical manpower (both quantity and quality) which is pre-requisite to the success of the construction industry;

(ii) Training needs for the construction industry, both formal and informal sectors, need to be identified and the training programmes being undertaken by various agencies should be adequately co-ordinated;

(iii) Demand for skilled middle and lower level manpower in the construction industry is rapidly increasing and creating an imbalance between the various categories of manpower employed in the industry;

(iv) Construction skills for a wide range of manpower for different aspects of human settlements development, especially low income housing, need to be urgently upgraded and expanded in a systematic manner using a modular-based strategy to cater for different training needs; and

(v) Financial and human resources available to the local training and research institutions involved in the provision of construction skills in the region are extremely limited and pose a serious constraint to training programmes.

Low cost sanitation and waste disposal mechanisms and related training facilities for urban and rural localities (agenda item 11)

(a) Presentation of papers

48. Two papers were presented on this theme by participants from Ghana and the Sudan. These papers highlighted the point that environmental health problems facing the region basically stem from the lack of basic sanitary measures such as:

(i) Provision of safe, ample and conveniently located water supply;

(ii) Provision of facilities for safe disposal of human excreta;

(iii) Provision of facilities for effective disposal of household solid and liquid wastes;

(iv) Control of mosquito and animal vectors of disease;

(v) Maintenance of proper food and hygiene; and

(vi) Maintenance of housing standards to ensure structural safety and adequate ventilation.

49. Examples of some of the environmental health problems caused by lack of these facilities are high incidence of:

(i) Water borne and excreta related diseases such as cholera, diarrhoea associated diseases, bacillary and amoebic dysentery, typhoid and hookworm, schistosomiasis, etc.,

(ii) Vector borne diseases such as malaria, yellow fever, onchocerciasis, filariasis, trypanosomiasis, etc.;

(iii) Airborne diseases such as tuberculosis, measles, pneumonia, cerebro-spinal meningitis, etc.

(iv) Soil borne diseases such as tetanus and hookworm;

(v) Faecal diseases such as rabies, yellow fever, leptospirosis, etc.

50. Of the five main categories of environmental health problems, the water-borne and excreta related diseases constitute the greatest health hazard causing high mortality, wide spread morbidity and extensive loss of vitality resulting in low productivity. For instance in Ghana during the period 1963-1972, diseases associated with the inadequacy of basic sanitary facilities accounted for 22 per cent of the mortality of children under five years. Most of these problems facing the region have arisen mainly due to the high level of illiteracy rate, and the low income of many of the urban and rural dwellers. It was emphasized that the selection of any appropriate sanitary system should be based upon a systematic analysis of the various factors involved.

51. Some examples of such low cost sanitary systems available today include:

(a) Pit latrines which may either be of the conventional type, Ventilated Improved Pit (VIP) type, Ventilated Improved Double Pit (VIDP) type or the Reed Odourless Earth Closet (ROEC). One particular disadvantage of this type of sanitation is its potential to pollute groundwater.

(b) Aqua Privies (AP) of which there types exist - simple or conventional AP, self trapping or sullage AP and the several AP.

(c) Composting Toilets which may either be continuous composting toilet type or batch composting toilet type of which the Double vault composting (DVC) is the commonly preferred type. DVC toilets however have no advantage over other forms of sanitation except in societies where there are traditions of reusing excreta in agriculture. They are also unsuitable in high density areas.

(d) Pour Flush Toilets (PFT) these have water seals beneath the squatting plate and may either be of the direct discharge type or effluent pit type. These however require significant amount of water of up to six litres/capita/day.

52. It was further emphasized that provision of adequate sanitary facilities must be carried out through the encouragement and active participation of the community. Because of high illiteracy rate, there is the need to embark upon environmental health education programmes. Such programmes may be achieved through:

(a) Introduction of elementary sanitary education as part of an integrated environmental health programme in schools;

(b) Introduction of relevant community programmes suitable for adults through use of instructors, posters, radio and mobile training units;

(c) Formulation of environmental health bye laws at local government level including the formulation of attendant machinery to oversee the implementation of such bye-laws.

53. In order to implement environmental health programmes, there is also a need to train adequate staff. The categories of staff identified to implement such programmes include:

- Sanitary Engineers
- Sanitary/Health Inspectors
- Health Technicians
- Health Auxilliary

54. Training of such personnel may be carried out at environmental health and training centres for the Auxilliaries and Technicians and at environmental health and hygiene colleges for Sanitary/Health Inspectors. Training of Sanitary Engineers is to be undertaken at University level.

(b) Discussions

55. During the discussions following the presentations, it was stressed that the problem of lack of trained manpower could also be alleviated through:

(i) Development of short courses, seminars and workshops in basic sanitary measures at national, regional and international levels; and

(ii) The increase in international assistance for the establishment of pre-professional and professional training programmes through fellowships, supply of trainers as well as supply of equipment.

56. It is also important to note that environmental health education programmes must reflect the social, cultural, economic and skill levels and needs of the community it is intended to serve. Participants also discussed the application of different sanitary systems and the need to disseminate information on the systems through demonstration projects.

IV. RECOMMENDATIONS OF THE EXPERT GROUP MEETING

Having considered and critically examined the current situation regarding the acute shortage of manpower and facilities for training various categories of personnel for the planning and implementation of human settlements programmes in the countries of the African region,

Convinced that the provision of suitably trained manpower is critical for the successful development of human settlements that reflect the social and cultural aspirations of the African countries,

Dealing with concern the high mortality and morbidity in Africa partly due to the lack of basic sanitary facilities especially for the disposal of human excreta,

Concerned that popular housing programmes for low-income groups in urban areas have not been accorded priority attention in the past,

Recommends as follows:

I. Policy, planning and promotion

(i) National training policies and programmes should clearly define the priorities for training of different categories of manpower needed at the community, local and national level to facilitate the implementation of human settlements programmes and projects;

(ii) National urban and regional planning strategies should be comprehensive and action oriented with a view to minimize rural to urban migration and related problems;

(iii) Investigations should be carried out to determine the reasons for the failure of the existing training programmes in the field of human settlements at national, sub-regional and regional levels with a view to monitoring, analyzing and evaluating these courses so as to improve existing programmes and plan new ones;

(iv) Programmes for the development and production of local building materials for low cost housing using available raw materials should be promoted and supplemented by the necessary training programmes;

(v) National focal points should be established to co-ordinate the activities of the construction industry in general and those of the training institutions in the industry in particular;

(vi) The active participation of the construction industry in training programmes for construction personnel should be promoted and strengthened;

(vii) Finance for the organization of training courses in the field of human settlements should be mobilized from resources at the national, regional and international levels;

(viii) To ensure a multi-disciplinary approach to the solution of human settlements problems, the provision of basic sanitary facilities must be accorded equal weight as other basic needs in the field of human settlements;

(ix) Research should be carried out at the national, subregional and regional levels on appropriate basic sanitary facilities in so far as adaptability and acceptability are concerned. Care should be taken not to adopt low cost human excreta disposal systems which have not been adequately tested for specific local conditions;

(x) Planners and engineers should not be biased in the selection of particular sanitary facilities. Instead selection should be based on scientific analysis of a combination of economic, social, cultural, environmental, technical and financial factors, and then acceptability by the community;

(xi) Machineries should be set up at national, subregional and regional levels for dissemination of information and experiences on basic sanitary mechanisms including low cost sanitation mechanisms;

(xii) African Governments should introduce sanitary by-laws at the local level, where they do not already exist, and ensure their effective administration.

(xiii) ECA should compile and publish a directory of training institutions in the field of human settlements indicating the training and research programmes offered and circulate it among the Member States of the Commission.

II. Popular housing and urban planning practice

(i) Urban planning in the African context should give consideration to the improvement of popular housing in urban areas rather than advocating for their demolition and should encourage indigenous concepts that reflect the values and social aspirations of the society;

(ii) Urban planning methodologies, building regulations and building by-laws inherited from the pre-independence era should be reviewed and updated to suit individual social and cultural needs including those of the urban low income families;

(iii) Training facilities and mechanisms should be geared to serving the basic needs of the urban low-income families living in popular housing settlements in the primary and intermediate cities and towns in order to effectively mobilize their skills and resources;

(iv) Emphasis should be placed on the organization of relevant and adequate short term courses, workshops and on-the-job training for the beneficiaries of human settlements projects in urban areas, as well as for the middle level personnel involved in project implementation and management;

(v) Training of urban and rural low-income families should be encouraged through aided self-help and co-operative housing schemes in order to develop affordable housing projects.

III. Professional and para-professional skills

(i) The establishment of African training institutions for personnel in the professional category should be given priority attention. In this connexion there is need for the evaluation of training needs at both the national and regional levels;

(ii) Training courses offered by institutions in the field of human settlements should reflect and meet the specific needs of Africa;

(iii) Periods of practical training should be integrated into training programmes and teaching should involve specific practical problems, while drawing a balance between theory and practice;

(iv) Africans who undertake their studies in Europe and elsewhere should be encouraged to choose subjects for their theses which concern problems in their countries or in Africa so that maximum benefit would be derived from their training abroad;

(v) Curricula for the training of urban/regional planners should be reviewed and updated with a view to making it problem-oriented and accommodate concepts of interdisciplinary planning approach reflecting indigenous socio-cultural values and the urban planning and building regulations and by-laws;

(vi) Training programmes need to be aimed at increased productivity of workers, upgrading of skills, and introduction of new skills for technological change in the industry. Some of the major objectives proposed are:

(a) Provision of requisite knowledge and applicable skills;
(b) Introduction to appropriate technologies relevant to the specific skills;
(c) Ensure the necessary tools, equipment and machinery; and
(d) Continuous training to update skills and to enhance job satisfaction.

(vii) Apprenticeship programmes where they exist in the region should be organized with a view to upgrading and improving these programmes in terms of adequacy, relevance and duration;

(viii) Training of craftsmen and technicians should emphasize the important role played by them in the industry and for them to provide long term service to the industry;

(ix) Vocational training centres should be established within each country to train masons/bricklayers, carpenters, painters, plumbers, plasterers, electricians and draughtsmen;

(x) Tools and equipment for construction technicians and small-scale builders need to be provided with assistance from the Government.

IV. Regional and International Co-operation

(i) Regional and international co-operation in the field of human settlements training is essential and should be promoted by African Governments and the Economic Commission for Africa, for implementation within the region;

(ii) Co-operation through student and teacher exchange programmes and the exchange of research information should be promoted;

(iii) African Governments should establish co-operation arrangements with international agencies and seek their support in the areas of research, training and equipment related to human settlements development;

(iv) Training of trainers for human settlements development should be carried out at the regional level with the collaboration of relevant international and overseas training institutions and to strengthen such collaboration where it presently exists.

Adoption of the report (item 11)

The expert group meeting on regional human settlements training facilities and mechanisms after comments and amendments, adopted the draft report as well as the draft recommendations.

Closing session

The meeting was closed by the Chairman, who thanked the participants for their co-operation and understanding during the entire meeting. He paid tribute to the Economic Commission for Africa for convening and organizing this meeting successfully and on the significant outcome. He hoped that this would lead to the formulation of a scheme of assistance to the African countries. In his closing statement, Mr. Mukamalla, representating the Executive Secretary of ECA, thanked the participants for the quality of their contributions in spite of the pressure of time. He expressed the hope that the participants would follow up the adopted recommendations through appropriate activities in their respective institutions.

LIST OF PARTICIPANTS

ETHIOPIA

Mr. Hailu [illegible]
Ministry of Urban Development
and Housing
P.O. Box 3367
Addis Ababa

Mr. Henri [illegible]
Directeur de l'Ecole Technique supérieure
des municipalités
B.P. 1993
Addis Ababa

GHANA

Mr. James Grant [illegible]
Lecturer
Faculty of Engineering
University of Science & Technology
Kumasi

[illegible]

Prof. [illegible]
Professor of Building and Head
of Faculty of Environmental Design
and Management
University of [illegible]
Tel-Aviv

[illegible]

Dr. [illegible]
Associate Professor
Building and Road Research Institute
University of Khartoum
P.O. Box 321
Khartoum

[illegible]

Mr. [illegible]
Chef de la Division de Recherche
Urbaine et Rurale (CENTRE VILLE)
B.P. 5992
Dakar

THE UNITED [illegible]
OF TANZANIA Dr. [illegible]
Executive Secretary
National Construction Council
of Tanzania
P.O. Box 6247
Dar-es-Salaam

[illegible]

Dr. [illegible]
UNDP, Chief Technical Adviser
c/o UNDP P.O. Box 7773
Addis Ababa

OBSERVERS:

UCE: Dr. David [illegible]
Senior Research Fellow
Institute of Spatial Planning
University of Dortmund
PO
P.O. Box 50500
Dortmund
Federal Republic of Germany

[illegible]: Mr. [illegible]
Institute for Housing Studies
P.O. Box 20
700 AA
Rotterdam, The Netherlands

UNITED STATES
[illegible]:

Mr. Jay Golde
Chief
Human Settlements Section

Ms. Suzanne Levi
Human Settlements Officer

Mr. [illegible] Srinivasan
Advisor
Building Materials
Human Settlements Section

Mr. [illegible] Evans
Advisor
Building Materials
Human Settlements Section

Mr. David [illegible] Clinton
Economic Affairs Officer
Environment Section

Mr. [illegible] Hasegawa
Policy Programming & Coordination
Office

[illegible]

Mr. [illegible] Field
Human Settlements Officer

Annex

Education for Architecture: A call for New Directions

Contributed by Professor E.A. Adeyemi Representative of Africa Union of Architects

1. Models of training for Human Settlements have followed rather closely European and American experience. Unfortunately such models have often lacked adequately qualified staff and facilities which the Oxford Conference of 1958 demanded when it advocated higher standards of entry and fewer but larger and better equipped schools.

2. Institutions training for Human Settlements in Africa experience shortage of adequately qualified teaching staff, facilities for teaching and carrying out laboratory work and adequate funds. This was the finding in Nigeria by a Joint Visitation of the professional body (the Nigerian Institute of Architects) and the registering body (the Architects Registration Council of Nigeria). This finding is applicable to most institutions in Africa.

3. Efforts on Regional basis to identify problems of training for Architecture were initiated into the African Region by the Commonwealth Association of Architects in November 1976 when a Joint Council/Education Board resolved to work towards inter-recognition of all African Commonwealth Qualifications through a system of visitation of schools at intervals of time. Such visitation was to be done in a manner as not to erode the autonomous of the institutions.

4. The recent formation of the African Union of Architects created opportunities for all African professional bodies to come together and tackle issues affecting the profession and architectural education. One of the priorities of the Union is architectural education whereby member institutes may be assisted to achieve national aims and helping schools of Architecture in Africa to achieve and maintain standards relevant to national needs.

5. It was in pursuance of these objectives that the Union resolved at its Congress held in Harare in May 1982 to create a Board of Education, Research and Technology at the level of its Secretariat whose activities shall include among other things, some of the important functions of data collection and research and the development and implementation of educational policies aimed at the public and the governments.

6. The implementation of some of the Harare Resolutions is expected to take form in the first AU Education Workshop/Seminar holding in Yamoussoukro in Ivory Coast from 9 to 14 January 1984. The main theme of this Seminar is Architectural Education in Africa. The Workshop/Seminar being proposed is a recognition by the African Union of Architects that Architectural and Planning Education has been adversely affected partly as a result of insufficient training or inadequate facilities and educational systems. The Seminar is aimed at defining the role of the Architects and the need for professional education as well as the characteristics of training institutions appropriate to African conditions.

7. The paper sought also to emphasize a need for reappraisal of existing curricula and facilities for training for Human Settlements. It raises a number of questions concerning the student, the educational system and indeed the creative products of the professions. Educational systems should be more flexible to minimise wastages and ensure compatibility between students' resources and aptitudes to career choices within education for Human Settlements.

Prof. E.A. ADEYEMI
FIAD. Department of Architecture
Ahmadu Bello University
Zaria, Nigeria